

## Patent Abstracts of Japan

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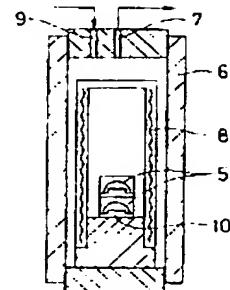
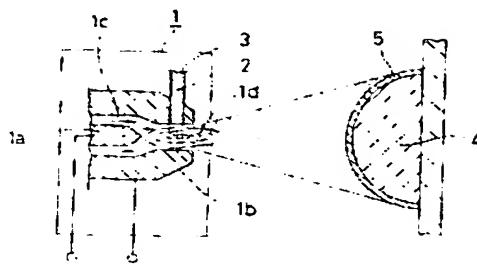
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APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : MOMIYAMA KIMIO;

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TITLE : MANUFACTURE FOR DIAPHRAGM  
 FOR SPEAKER



ABSTRACT : PURPOSE: To obtain a diaphragm having excellent specific modulus by forming a membrane by melt spraying a diaphragm material composed of ceramics, metal, or the mixture of them, which is made into melt spraying powder, on a die having the shape of the diaphragm and accumulating the material and further executing high temperature hydrostatic pressure pressing (HIP hereafter) processing for the formed membrane.

CONSTITUTION: For the diaphragm for a speaker, first the membrane having the shape of the diaphragm is manufactured by using a plasma melt spraying device 1. The melt spraying device 1 has an electrode 1a and a nozzle 1b and introduces a gas obtained by mixing the appropriate quantity of hydrogen gas in either a nitrogen gas or an argon gas into a clearance 1c between the electrode 1a and the nozzle 1b. Further, the mixed gas is ionized and made into a plasma flame 1d by applying electric power from a power source connected to a terminal to the clearance 1c between the electrode 1a and the nozzle 1b. A membrane 5 formed by the plasma melt spraying is set to an appropriate jig 10, placed in a high pressure container 6 of a HIP device which can also work as a kiln, and heated by a heater 8 composed of graphite, and the argon gas is introduced from a gas supply port 9 at a point where the temperature of the membrane 5 reaches approximately 500°C.

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